

In the Claims

Claims 1-20 [canceled].

1 21. [Previously Presented] A data storage system comprising:
2 storage circuitry configured to store digital data;
3 a plurality of components coupled with the storage circuitry and
4 configured to communicate transactions with respect to one another and to
5 process the transactions to effect operations with respect to storage of digital
6 data using the storage circuitry; and
7 wherein at least one of the components is configured to detect a
8 presence of a fault in a transaction communicated from an other of the
9 components, and to disable communication of subsequent transactions from the
10 other component to the one component after the detection of the transaction
11 including the fault from the other component.

1 22. [Previously Presented] The system of claim 21 wherein the one
2 component is configured to not process the transaction including the fault.

1 23. [Previously Presented] The system of claim 21 wherein the
2 storage circuitry comprises a plurality of redundant storage circuits configured to
3 redundantly store digital data.

1 24. [Previously Presented] The system of claim 23 wherein the
2 components comprise a plurality of mirror circuits individually configured to
3 effect storage operations with respect to both of the storage circuits.

1 25. [Previously Presented] The system of claim 21 wherein the one
2 component is configured to disable an interface in communication with the other
3 component to disable the communication of the subsequent transactions.

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1 26. [Previously Presented] The system of claim 21 wherein the one
2 component is configured to communicate and process transactions with respect
3 to an additional component after the disablement of the communication of the
4 subsequent transactions.

1 27. [Previously Presented] The system of claim 21 wherein at least
2 one of the subsequent transactions does not include a fault.

1 28. [Currently Amended] A redundant data storage system
2 comprising:
3 storage circuitry comprising a plurality of redundant storage circuits
4 configured to redundantly store digital data; and
5 a plurality of components coupled with the storage circuitry and the
6 components are configured to communicate transactions with respect to one
7 another and to process received transactions to effect operations with respect to
8 storage of digital data using the redundant storage circuits, wherein the
9 components are individually configured to identify transactions which include a
10 fault, and to prevent processing of the transactions which have been identified
11 as including a fault using the respective individual component.

1 29. [Previously Presented] The system of claim 28 wherein the
2 transactions which include a fault are communicated from at least one of the
3 components, and others of the components are configured to disable
4 communications with respect to the one component to prevent the processing.

1 30. [Previously Presented] The system of claim 29 wherein the
2 others of the components are individually configured to disable a respective
3 interface coupled with the one component to disable the communications.

1 31. [Previously Presented] The system of claim 28 wherein the
2 transactions for which processing was prevented would have otherwise been
3 processed by recipient components.

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1 32. [Previously Presented] The system of claim 28 wherein the
2 components are individually configured to prevent the respective processing
3 responsive to the identification.

1 33. [Previously Presented] The system of claim 28 wherein at least
2 one of the components is configured to identify at least one of the transactions
3 including a fault as being communicated from an other of the components and
4 to prevent processing of subsequent transactions communicated from the other
5 component after the identifying.

1 34. [Previously Presented] The system of claim 33 wherein the one
2 component is configured to process transactions from additional ones of the
3 components after the identifying.

1 35. [Previously Presented] A redundant data storage system
2 comprising:
3 means for redundantly storing digital data;
4 plural means for processing transactions for effecting operations with
5 respect to the redundant storage of digital data; and
6 wherein one of the means for processing is identified responsive to
7 communication of a transaction including a fault from the one means for
8 processing, and wherein subsequent transactions communicated from the
9 identified means for processing which would otherwise be processed are not
10 processed by at least one other of the means for processing responsive to the
11 identification.

1 36. [Previously Presented] The system of claim 35 wherein the
2 subsequent transactions individually do not include a fault.

1 37. [Previously Presented] The system of claim 35 wherein the
2 other means for processing comprises means for disabling communications with
3 respect to the one means for processing responsive to the identification.

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1 38. [Previously Presented] The system of claim 35 wherein the
2 other means for processing comprises means for processing transactions of
3 additional means for processing after the identification.

1 39. [Previously Presented] A data storage method comprising:
2 storing digital data using a data storage system;
3 communicating a plurality of transactions intermediate a plurality of
4 components of the data storage system;
5 processing the transactions using the components;
6 using the components, effecting operations with respect to storage of
7 digital data responsive to the processing;
8 identifying one of the transactions from one of the components as
9 including a fault; and
10 disabling communications of others of the transactions from the one
11 component responsive to the identifying.

1 40. [Previously Presented] The method of claim 39 wherein the
2 storing digital data comprises redundantly storing digital data using a plurality of
3 redundant storage circuits of the data storage system.

1 41. [Previously Presented] The method of claim 39 wherein the
2 disabling comprises disabling respective interfaces of the other components
3 responsive to the identifying.

1 42. [Previously Presented] The method of claim 39 further
2 comprising processing transactions using the other components after the
3 disabling.

1 43. [Previously Presented] The method of claim 39 wherein the
2 disabling comprises disabling communications of at least one of the others of
3 the transactions not including a fault.

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1 44. [Currently Amended] A data storage method comprising:
2 storing digital data using storage circuitry of a data storage system,
3 wherein the storing comprises redundantly storing an identical data item of the
4 digital data within individual ones of a plurality of redundant storage devices;
5 providing a plurality of redundant components of the data storage system
6 and individually configured to effect data storage operations of the storage
7 circuitry;
8 identifying corruption of one of the components;
9 isolating the one of the components responsive to the identifying; and
10 after the isolating, providing redundant functionality of the isolated
11 component using a redundant one of the components corresponding to the
12 isolated component.

1 45. [Currently Amended] The method of claim 44 ~~wherein the~~
2 ~~storing digital data comprises redundantly storing the digital data using a~~
3 ~~plurality of redundant storage circuits~~ further comprising, using the data storage
4 system, receiving the data item from externally of the data storage system
5 during storage operations of the data storage system.

1 46. [Previously Presented] The method of claim 44 where the
2 providing redundant functionality comprises providing a transaction using the
3 redundant component and corresponding to an isolated transaction of the
4 isolated component.

1 47. [Previously Presented] The method of claim 44 wherein the
2 redundant component provides the same functionality as functionality of the
3 isolated component.

1 48. [Previously Presented] The method of claim 44 wherein the
2 isolating comprises preventing processing of transactions from the isolated
3 component which would have otherwise been processed.

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1 49. [Previously Presented] The method of claim 44 wherein the
2 isolating comprises disabling communications of others of the components with
3 respect to the isolated component.

1 50. [Previously Presented] The method of claim 44 wherein the
2 isolating comprises disabling at least some communications from the isolated
3 component.

1 51. [Previously Presented] The method of claim 50 wherein the at
2 least some communications individually do not include a fault.

1 52. [New] The system of claim 21 wherein the components are
2 configured to control redundant storage of a data item of the digital data within a
3 plurality of different storage devices of the storage circuitry.

1 53. [New] The system of claim 52 wherein the different storage devices
2 comprise a plurality of hard disks.

1 54. [New] The system of claim 52 further comprising receiving the data
2 item from a host system external of the data storage system during operations of
3 the data storage system.

1 55. [New] The system of claim 21 wherein the at least one of the
2 components is configured to monitor for the presence of a parity error and a
3 protocol error to detect the presence of the fault in the transaction.

1 56. [New] The system of claim 28 wherein the storage circuitry is
2 configured to store an identical data item of the digital data within individual ones of
3 a plurality of redundant storage devices of the storage circuitry to implement
4 redundant data storage.

1 57. [New] The system of claim 56 wherein the redundant storage
2 devices comprise a plurality of hard disks.

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1 58. [New] The system of claim 35 wherein the means for redundantly
2 storing comprises means for redundantly storing a single data item in a plurality of
3 storage devices.

1 59. [New] The method of claim 39 wherein the storing comprises
2 redundantly storing a single data item of the digital data in a plurality of storage
3 devices.

1 60. [New] The method of claim 59 wherein the storing comprises
2 storing the single data item in the storage devices comprising hard disks.

1 61. [New] The method of claim 39 wherein the disabling comprises
2 disabling communications comprising a first type of transactions from the one
3 component, and further comprising receiving and processing a second type of
4 transactions from the one component after the identifying and during the disabling
5 of communications comprising the first type of transactions.

1 62. [New] The method of claim 44 wherein the storing comprises
2 storing the identical data item within the redundant storage devices comprising hard
3 disks.

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